

## REMARKS

This Response is submitted in response to the non-final Office Action mailed on January 4, 2008. No fee is due in connection with this Response. The Director is authorized to charge any fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 115808-520 on the account statement.

Claim 9 is pending in this application. Claims 1-8 and 10-48 were previously canceled without prejudice or disclaimer. In the Office Action, Claim 9 is rejected under 35 U.S.C. §103. For at least the reasons set forth below, Applicants respectfully submit that the rejection should be withdrawn.

In the Office Action, Claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 6,156,355 to Shields, Jr. et al. ("*Shields*") in view of U.S. 6,524,574 to Spangler et al. ("*Spangler*") and U.S. 3,946,123 to Hanna ("*Hanna*"). Applicants believe this rejection is improper and respectfully traverse it for at least the reasons set forth below.

Claim 9 recites, in part, a nutritionally complete pet food comprising an ingestible carrier having 1) at least one component selected from the group consisting of a probiotic lactic acid bacterium, a culture supernatant of a probiotic lactic acid bacterium, and combinations thereof, present in an amount of at least  $10^5$  cfu/g, 2) at least one yeast present in an amount of at least  $10^5$  cfu/g, and 3) at least one synthetic or natural carotenoid with or without provitamin A activity present in an amount of from about  $10^{-12}\%$  to 20% by weight. Applicants have surprisingly discovered that probiotics produce an effect in an individual's body at a location distant from the region in which they colonize it. See, Specification, page 5, lines 16-19. Specifically, admixture of the claimed ingredients in an ingestible carrier produces the unexpected result of an enhanced synergistic photoprotective effect on the skin. See, Specification, page 5, lines 6-8 and 17-19. In contrast, Applicants respectfully submit that the cited references are deficient with respect to the present claims.

For example, one of ordinary skill in the art would have no reason to combine the cited references because the cited references are non-analogous art. *Shields* is entirely directed to pet food formulations designed to accommodate the unique needs of pets within various breed groups taking into account both the genetic diversity and food allergies of different dog breeds. See, *Shields*, column 3, lines 20-36. The probiotics of *Shields* are utilized in pet food formulations for breeds with gastrointestinal immune deficiency problems to aid in digestion.

See, *Shields*, column 11, lines 18-21 and 59-67; column 12, lines 1-7; column 14, lines 38-52. Similarly, *Spangler* is entirely directed to probiotics that are used to inhibit the colonization of certain bacteria in the intestines of humans and animals. See, *Spangler*, column 3, lines 3-7. Unlike the present claims, which disclose a combination including probiotics to produce a photoprotective effect on the skin of animals, *Shields* and *Spangler* are wholly directed to the use of probiotics to create a digestive effect in the intestine of the animal. The Specification expressly distinguishes the claimed invention from prior art disclosures in which probiotics were reported to exert their effect in the intestine. See, Specification, page 5, lines 9-19. Further, *Hanna* is directed to a canned pet food composition containing a cereal product in a palatable form to produce a chunky pet food product. See, *Hanna*, column 1, lines 6-9 and 56-58. Like *Shields* and *Spangler*, *Hanna* fails to address the problem of protecting an animal's skin against ultraviolet-related stress. Thus, the cited references are non-analogous art.

The Examiner alleges that the cited references are analogous art because all three references are “‘in the field of applicant’s endeavor,’ i.e. pet food formulations.” See, Office Action, page 5, lines 19-22. Applicants respectfully submit that the appropriate “field of applicant’s endeavor” includes pet food compositions for skin photoprotection as described in the title of the invention, rather than the broad category of “pet food formulations.” The Examiner also alleges that the relevant field is “domestic pet nutrition art.” See, Office Action, page 5, lines 6-7. However, even if the relevant art includes all “domestic pet nutrition art,” *Hanna* is not properly combinable with the cited references. Although *Hanna* discloses the optional addition of vitamins to satisfy an animal’s dietary requirements, *Hanna* is not directed to a pet food composition that addresses the nutritional needs of a pet but rather a pet food that contains palatable chunks of synthetic meat or cheese produced with an inexpensive substitute such as cereal. See, *Hanna*, column 1, lines 11-21; column 2, lines 5-8. Thus, the cited references are not within the field of Applicants’ endeavor. Furthermore, the cited references are not reasonably pertinent to the particular problem with which Applicant was concerned, since none of the references are directed to protecting an animal’s skin against damaging ultraviolet-related stress. Therefore, the cited references are non-analogous art, and a skilled artisan would have no reason to combine those references to arrive at the present claims.

Moreover, the combination of cited references is not obvious because the claimed combination of ingredients produces the unexpected result of an enhanced synergistic photoprotective effect on the skin. See, Specification, page 5, lines 6-8 and 17-19. The

Examiner alleges that the cited references render the present claims obvious “absent a showing of unexpected results.” See, Office Action, page 4, lines 17-19. However, Applicants respectfully submit that the Specification demonstrates that the claimed combination of ingredients produces the unexpected result of protecting an animal’s skin against harmful ultraviolet-related stress.

For example, the Specification expressly states that “[t]he combination according to the present invention has a particular beneficial effect on skin protection and colouration of the skin, that helps to reduce the effects of ultraviolet-related stress on skin.” See, Specification, page 4, lines 23-25. In fact, “it has now surprisingly and unexpectedly been determined that admixture of these very specific constituents [of the present claims] elicits an enhanced effect or response in respect of the photoprotection of the skin.” See, Specification, page 5, lines 6-8. Until the present invention, probiotics were only reported to produce beneficial effects in the intestine, or the area in which they colonize an individual’s body. See, Specification, page 5, lines 9-15. Furthermore, for reasons discussed previously, the cited references only disclose the use of probiotics to create a digestive effect in the intestine of an animal. Applicants respectfully submit that one of ordinary skill in the art would not reasonably expect that a combination of the cited references would produce any effect outside the intestine of an animal. Thus, the present claims are not obvious because the claimed combination produces an unexpected photoprotective effect.

The Examiner asserts that an advantage “which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.” See, Office Action, page 6, lines 3-6. The Examiner seems to allege that the claimed composition is obvious because the composition “contains three components that, as evidenced by the cited prior art, were well known ingredients in pet food formulations at the time of the invention.” See, Office Action, page 6, lines 6-10. However, even if each individual ingredient is disclosed in the prior art, none of the cited references discloses the claimed beneficial combination of ingredients. Moreover, as discussed previously, the claimed combination of ingredients in an ingestible carrier unexpectedly produces the synergistic beneficial effect of the present invention. Therefore, Applicants respectfully submit that the claimed advantage would not “naturally flow” from a piece-by-piece hindsight reconstruction of the cited references.

Accordingly, Applicants respectfully request that the rejection of Claim 9 under 35 U.S.C. §103(a) to *Shields* in view of *Spangler* and *Hanna* be withdrawn.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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